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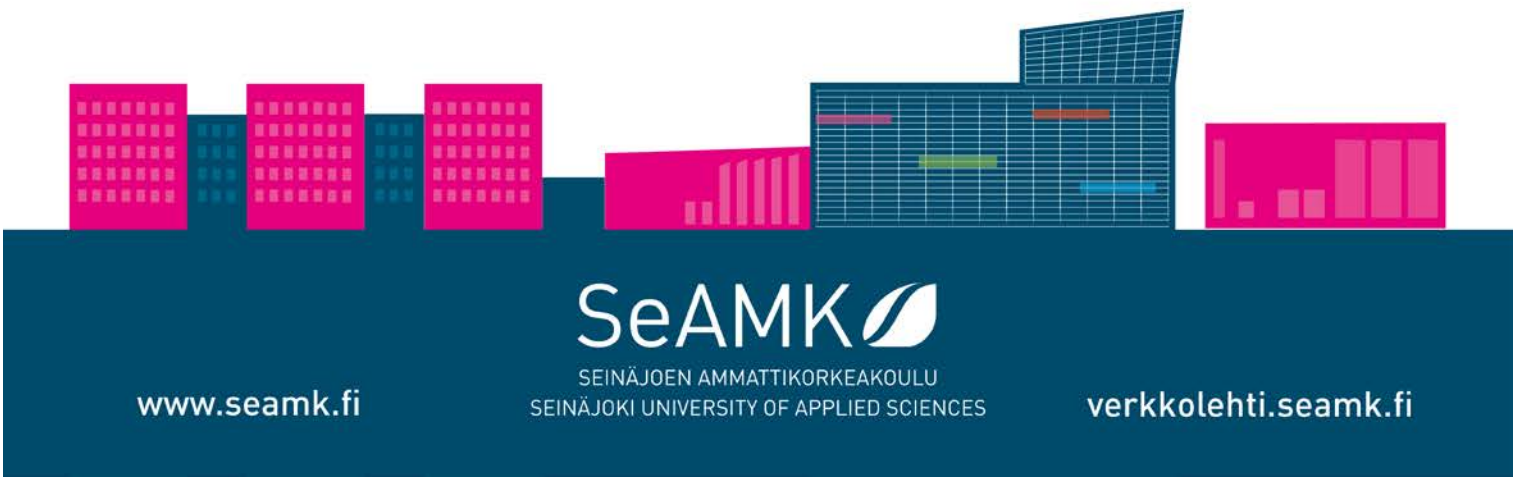

Challenges and Factors Likely to Promote Coping as Anticipated by Nurses Preparing for a Merger of Intensive and Intermediate Care Units

ABSTRACT

Objective

To describe challenges and factors that support coping as anticipated by nursing staff preparing for a merger of intensive and intermediate care units.

Research methodology

The method of empathy-based stories was employed to collect data from staff. The stories (n = 20) were analysed using inductive content analysis.

Setting

Nursing staff of cardiac observation and evaluation, intensive care and surgical observation units in a central hospital in Finland.

Findings

Participants anticipated challenges related to personal factors that affect coping at work, challenges in co-operation among nursing staff and problems associated with the new work context. Participants expected to need informational, concrete and social support from colleagues in future clinical nursing situations.

Conclusion

Fostering peer support and team spirit is important to ensure staff co-operation and smooth care processes following restructuring.

Keywords

Nurse, qualitative research, anticipated experiences, support, restructuring

IMPLICATIONS FOR CLINICAL PRACTICE

- Healthcare managers should pay special attention to promoting staff co-operation and ensuring a good work atmosphere when preparing for restructuring.
- Staff's physical coping and mental resources should be supported and their professional competence strengthened by offering continuing education.
- It is important that managers are aware of their role as providers of informational, social and concrete support to staff.
- Listening to and taking into account staff's experiences is important in organizations undergoing change.

INTRODUCTION

Organizational changes commonly bring on challenges and increase hospital staff's need for support. This article introduces a central hospital in Finland, which has sought to prepare for change by applying an anticipatory model and by arranging collaborative workshops for staff. In 2018, the hospital will open a new intensive and intermediate care unit, created with help of evidence-based design. The new unit will combine three existing units, currently responsible for cardiac observation and evaluation, intensive care and surgical observation. The contemporary open-space care context divided by curtains will be replaced by single patient rooms, which is expected to improve patients' privacy and reduce their stress. Despite their obvious advantages, the restructuring of units and the introduction of the single patient room policy are changes that might also create problems for the smooth function of the nursing team.

Researchers have found evidence of how mergers of units and reorganization of services can represent a source of stress for nursing staff (Aiken et al., 2001; Way et al., 2005; Nordang et al., 2010). In the early stages of the restructuring process, nurses have been reported to be especially concerned about

patient safety and the quality of the care (Spence Laschinger et al., 2001; Wynne, 2004; Valentin and Ferdinande, 2011). A study reports that patient safety and teamwork are considered to be among the most vulnerable dimensions of the safety culture during restructuring (Vifladt et al., 2016). Staff members often feel that they do not receive sufficient support from their colleagues or management (Aiken et al., 2001; Spence Laschinger et al., 2001; Tervo-Heikkinen et al., 2008; Harmoinen et al., 2014).

Despite changing care contexts, patient safety must remain a primary concern. It requires, according to The Finnish Patient Safety Strategy (2009), quality and risk management and making the best of the resources available. The overall safety culture, here defined as an integrated pattern of individual and organizational behaviour based on shared values that promote patient safety (European Union Network for Patient Safety 2010) should become a focus of attention when planning and accomplishing restructuring. Anticipation of safety risks and identification of critical points in the care pathway become crucial. Risks can be diminished if commonly agreed practices and policies are observed in the organization; the importance of meaningful rules and practices is magnified during change. (Valentin, 2013.) Immediate managers have a key role to play in helping staff cope by fostering team work and team spirit (Corrigan et al., 2001; Salmela et al., 2013). It has been reported that well-functioning teamwork affects patient safety positively and that optimal working conditions combined with an encouraging atmosphere decrease errors in intensive care units (Hawryluck et al., 2002; Valentin et al., 2013; Basuni and Bayoumi, 2015). Open discussion on patient safety issues can also reduce stress in staff (Thomas et al., 2003; Lingard et al., 2004). Successful teamwork and communication, combined with clearly formulated common policies benefits both patients and nursing staff (Sexton et al., 2000; Pronovost et al., 2003). In addition to the research mentioned above, the effect of restructuring intensive care facilities has also been studied from the perspective of clinical care and outcomes (Aiken et al, 2001).

The context of the study

In the case under study, the development of the new care context and practices relies on expert recommendations, standards and criteria for intensive care, reached through international consensus (Brilli et al., 2001; Valentin and Ferdinande, 2011). In its effort to promote and maintain patient safety and ensure safe, continuous care throughout the critically ill patient's care pathway despite the restructuring process, the hospital has applied the Foresight Framework Model and the Pathfinders method (Carleton et al., 2013). The Foresight Framework Model can be used to anticipate and manage change by creating alternative visions for the future. In this case, the aim was to identify, anticipate and evaluate critical points in the creation of the new intensive-intermediate care context and to prevent human error by formulating a new action model. The purpose of the Pathfinders method is to use knowledge of how innovations have previously been established in the organization. This can involve identifying events that help to accelerate development and events that hinder the progress of the innovation. The method is based on the idea of wayfinding, or the idea of navigating physical space with visual cues, maps and landmarks. (Carleton et al., 2013.)

In concrete terms, four rounds of workshops were arranged for the entire nursing staff of the current units to be merged well before the actual implementation of the change. Three rounds of workshops were held in 2015, with each round comprising 4-5 components and bringing together 5-10 participants at a time, while the fourth workshop was arranged for the whole staff of the future intensive-intermediate care unit in February 2016. The work, based on a combination of the Foresight Framework Model and the Pathfinders method, proceeded through five phases. The purpose of phase 1 (Perspective) was to develop a long clear view based on the organization's history. Participants focussed on identifying contemporary factors that promoted patient safety and smooth teamwork and should thus be retained in the new context of single patient rooms. Phase 2 (Opportunity) involved

exploring the promising opportunities provided by the new unit, and reflecting on how to accommodate them in relation to patient safety, command of work and development of nursing competence. In phase 3 (Solution), a practicable prototype was constructed. Participants defined the essential components of the new action model and created preliminary process models, whose purpose was to guide all nursing care and detect any critical points. The last phases 4 (Team) and 5 (Vision) were reached during the fourth workshop. Participants summarised and discussed the most important results so far and sought ideas for supporting the coping of nursing staff. (cf. Carleton et al., 2013.)

The current paper is based on material produced during phase 4. Participants were asked to write a short narrative or a visionary story on the challenges and peer support they anticipated or expected to have in the new unit. Studying the experiences of nursing staff during organizational change is a good point of departure for the development of actions that can promote staff coping.

METHODS

Research questions and objectives

The purpose of the study was to describe nursing staff's anticipated experiences of working in the new unit. The research questions were:

1. What kind of challenges do members of the nursing staff anticipate when preparing for the introduction of the new unit?
2. Which factors do nurses see as likely to promote their coping in the early stages of running the new unit?

Setting, participants and data collection

The target group consisted of twenty nursing staff members in the current cardiac observation and evaluation, intensive care and surgical observation units. The method of empathy-based stories was used to acquire data. Voluntary participants were asked to write a narrative based on the investigator's frame story (Eskola, 1998; Saaranen-Kauppinen and Puusniekka, 2009.) The idea was that, inspired by the situation in the frame story, participants would continue the story in their own words. Empathy-based stories, commonly utilized in social sciences, were selected as a tool, because the method allows participants to freely anticipate and reflect on future events. In nursing science, the method has been used, for example, to study managers' views of the effects of clinical supervision (Hyrkäs et al.). In this case, the method produced information about future challenges, staff's needs for support and other factors that should be taken into consideration during the restructuring process. Narratives written using this method are not necessarily descriptions of reality (Eskola, 1998); they can also represent, possibilities, meanings and potential scenarios writers attach to the elements presented in the frame story. The method can also generate new perspectives and rich, meaningful data on both individual and shared social or cultural meanings that respondents attach to a phenomenon in a given context (Suoranta, 1995; Eskola, 1998; Posti-Ahokas, 2013; Wallin et al., 2015).

For this study, participants were met by the investigators, given instructions and asked to anonymously continue a frame story, which had been pre-tested with two nurses. Respondents had 30 minutes to respond to the following frame story:

> " The new intensive and intermediate care unit will be opened in 3 weeks. There are still some challenges related to the operation of the unit, but we are grabbing the challenge with enthusiasm. I myself find the following things challenging and wish to

receive support from my colleagues in the following points…Continue the story in your own words."

Data analysis

An effort was made to bring out the participants' voices by extracting type stories out of data. The description of type stories, however, seemed to produce too stereotypical and reduced stories. Given the richness and complexity of the material, it was decided that the data should also be analysed using inductive content analysis (cf. Graneheim and Lundman, 2004). The material, 20 narratives, was first read through several times. The clauses or thoughts and ideas that seemed to represent an answer to the research questions were picked out, saved into Word files and rewritten as reduced expressions, while retaining the core idea of the original expression. Expressions with similar contents were grouped together as sub-categories, which were then grouped under higher order headings or generic categories. Finally, the generic categories were grouped as main categories. To ensure plausible interpretation, the investigator repeatedly returned to the original narratives. Table 1 gives an example of how the inductive content analysis proceeded.

Table 1. Inductive content analysis exemplified by progress from original expressions to sub-category

Original expression	**Reduced expression**	**Sub-category**
”Nurses coming from other units have different practices”	Accepting that nurses have different practices	Smooth co-operation with new colleagues
”In the other units they are used to doing it that way and we have this way, how to combine the different practices”	Combining different nursing practices	
”Will I have the courage to disturb a new colleague and ask for help if I have problems with the equipment”	Hesitation to consult a new colleague	
”Forming cliques with old colleagues may impair cooperation with new colleagues”	Formation of cliques as an obstacle to smooth co-operation	
”Will everybody do things the same way as in former units”	Adhering to old routines	
”Even if we agree on an action model, in a hurry one tends to return to old survival behaviours”	Adopting common action models	
”We need common rules of play and everybody should respect them”	Observing common rules of play	

Ethical considerations

The ethical principles for medical research, as defined in the Helsinki Declaration of the World Medical Association (2013), were observed throughout the study. Ethical approval was not required, because no patients or family members were involved. Permission to conduct research was granted by the hospital district. The study is part of an extensive research project on evidence-based design for intensive and intermediate care facilities. Any ethical decisions made were based on responsible conduct of research (Finnish Advisory Board on Research Integrity, 2013) and on the relevant laws (Act 488/1999; Decree 986/2001) governing medical research. The topic selected should be

interesting to a large audience within nursing. Participation was voluntary and nurses wrote their narratives anonymously (cf. Polit & Beck, 2012).

FINDINGS

Challenges anticipated by nursing staff preparing for the new unit

Respondents anticipated a great number of challenges in the transition to the new unit. The challenges mentioned were related to personal factors that affect coping at work, to co-operation among nursing staff and to the new work context. The findings are presented in table 2.

Table 2. Challenges anticipated by nursing staff preparing for the introduction of a new unit

Sub-category	**Generic category**	**Main category**
Fear that one's knowledge is insufficient for caring new groups of patients	Insecurity about one's professional competence	
Stress due to experienced lack		
of observation skills		Personal factors that affect coping at work
Worry about learning to use the new equipment safely		
Physical tiredness due to ageing	Concern about the sufficiency of one's resources	
Mental tiredness trying to adapt to the new unit		
Stress about coping with new groups of patients		
Insufficient staff to assist with basic nursing care	Help from colleagues	Factors that influence co-operation among nursing staff
Need to develop a new culture of offering help		
Finding replacement for meal breaks and visits to toilet		
Smooth co-operation with new colleagues		

Simultaneous need for nurses following resuscitation alarm and cardiac event	Simultaneous challenging situations	
Simultaneous resuscitation/ emergency in the unit and in another ward		
Simultaneous admission of several trauma patients		
Patient's rapidly developing restlessness or delirium in a single patient room	Rapidly changing situations	
Patient's severe deterioration in a single patient room far from other nursing staff		
Finding instruments fast	New equipment	Factors associated with the new work context
Getting familiar with new equipment		
Securing that the equipment functions properly		
Developing new uniform documentation practices	New practices	
Learning to find one's way in the new work context		

The personal factors that might affect coping at work included insecurity about one's competence and concern about one's resources. Respondents worried whether their theoretical and practical competences would be adequate for the influx of new patient groups and for managing complex equipment. Even expertise gained through a long work history was experienced as too narrow to care for the new groups of patients brought on by the merger. In the following examples, individual respondents were designated as R1, R2 etc.

"Will I know how to care for all the specialty patients and take the right things into consideration?"

"Will I know how to use all the equipment properly, without risking patient lives?"

Nurses also wondered if their mental and physical resources would be sufficient for work in the larger unit. The author assumes that when mentioning mental resources, respondents were referring to their emotional, cognitive and social capabilities and ability to cope with stress. Ageing, combined with the single patient room policy, was regarded as a challenge to physical coping, whereas having to adapt to the new unit, colleagues and patient groups represented challenges to the nurses' mental resources. Concern about patient safety and quality of the care in the new unit was also mentioned as a source of stress. Below is an example of the original comments.

"How will I manage alone in a patient room if my patient vomits and I have to turn him on his side, and at the same time I should get him medicine"

Participants also anticipated problems in co-operation among staff. The problems predicted were associated with receiving help from colleagues, with simultaneous challenging situations and with rapidly changing situations. Receiving help from colleagues was considered important, but it was expected to become more complicated with the introduction of the single patient room policy. Help might be far away, and nurses worried how they would be able to reach a colleague to assist with restless or heavy patients. Participants also wondered how to arrange a colleague to look after their own patient during lunch breaks or when visiting the toilet. They said, for example,

"How will the workload be managed; where/from whom/when/how will I get help when I need it?"
"Caring for an isolated patient sounds quite lonely, spending time with a sedated patient in a sealed patient room– how will I get a colleague to replace me during meal breaks and to go to the toilet?"

How to reach smooth co-operation with new colleagues was another anticipated challenge. Participants observed that nurses coming from other units would be used to different practices and it

would take time to combine the practices. Smooth co-operation might be jeopardized by nurses' hesitation to consult a new colleague, by potential formation of cliques and by adherence to old routines. Participants suggested that a new culture of offering help should be developed. Adopting common practices and observing common rules of play were considered important. In the respondents' own words,

"We need common rules of play for all – need to stick to them – not just do 'like we have always done'"

"Will I have the courage to ask for help or offer help? Will I disturb a colleague if I ask something? How to get an idea of what a colleague is doing, and when to offer help?"

"Potential formation of cliques may affect the atmosphere and co-operation negatively."

According to the participants, simultaneous challenging situations and rapidly changing situations might also constitute a risk to smooth co-operation. Rapid changes are common in critically ill patients, and the management of the situations calls for well-functioning teamwork. Nursing staff were concerned that enough colleagues might not be available in time. They also worried about who would care for their more poorly patients while they attended to emergencies. Simultaneous situations, in which nurses are expected to deal with emergencies in their own unit and in another ward at the same time, were regarded as especially demanding. One of the participants envisioned the situation in the following way:

"An acute cardiac case coming. One of the cardiac cath labs is empty, cardiologists are available but not enough nurses to carry out the procedure. And now there is this resuscitation alarm."

A rapid deteriorating of one's primary patient was also mentioned as an example of anticipated difficulties. The situation might require sedating or restraining the patient without assistance from colleagues, who might be occupied with other emergencies. As one of the respondents put it,

"I am alone, no colleagues in sight. The device is beeping in my pocket because in the other rooms, where I should actually be, some equipment is sending out alarm. The patient is pulling on the tubes. I should not leave the patient alone. Running out of infusion, who has time to prepare a new one, no pharmacist in sight, I have problems with the smart medicine cabinet…"

Finally, respondents anticipated challenges related to the new work context, especially as regards new equipment and nursing practices. In the beginning, just finding one's way around the new environment and locating the instruments might be stressful. Participants worried that learning to use the new equipment might take time and that insecurity regarding how to use the equipment correctly and safely could undermine their feeling of having the situation under control. They also predicted that creating and adopting common documentation practices would take some time. For example,

"Will anyone have an overview of the situation as regards the resources?"
"Things are lost, where to find them, and who knows if nobody knows?"
"The new documentation practices and programmes, will I know how to enter everything correctly?

Besides the challenges related to the equipment, practices and rules of play, participants expected their resources to be consumed by getting to know the new colleagues and learning the nursing schemes of new patient groups.

Factors Likely to Promote the Coping of Nursing Staff

Respondents foresaw a need for support from colleagues in future clinical nursing situations. They believed that both informational, concrete and social support would be required. The results are shown in Table 3.

Table 3. Nursing staff's anticipated needs for support

Sub-category	**Generic category**	**Main category**
Consulting a colleague about observations concerning patient status		
Consulting a colleague to confirm that one's decision	Need for informational support	
regarding patient care has been correct		Need for support from colleagues in nursing situations
Ensuring one has the correct information on the nursing schemes of new patient groups		
Requesting a colleague to instruct how to use new equipment	Need for concrete support	
Seeking help from a colleague to ensure that the new equipment functions appropriately		
Asking a colleague for help with a heavy patient's postural care		
Requesting support from a colleague to manage challenging encounters with family members		
Discussing a traumatic situation with a colleague		
Managing a difficult situation with a colleague together	Need for social support	

First, informational support would be needed when nurses wanted to obtain a second opinion to support their assessment or decision regarding their primary patients. Nurses anticipated feelings of insecurity, especially as regards the care of new patient groups. Informational support from colleagues would be essential to become familiar with the new nursing schemes and medication instructions. Examples of the respondents' comments are presented below.

"I need information and support to get to know the new systems and drug care."
"Support from colleagues when there are unfamiliar care practices; medication, machines, technology, informational support"
"Support for the care delivered, too, if there is any uncertainty at all"
"Following complex and plentiful instructions, consulting colleagues, double-checking"

Second, nurses expected to require concrete support with daily routines. Typical situations might involve basic nursing care, for example care of burn patients or postural care of heavier patients. Nurses also found it likely that they would need concrete help and support when starting to use new equipment and ensuring that they function properly. They said, for example,

"What are the properties of this equipment? Who can I ask for help? I need hands-on help."
" I will need help with the machines. Will I know how to use them?"
"Using the patient lift alone, without help from a colleague is challenging, I will need a pair of hands."

Third, participants stated that social support would become important, especially in situations experienced as challenging or traumatic. They felt that it would be beneficial to share emotionally

exhausting and stressful situations. Discussing concerns with colleagues could reduce stress and supply nurses with new perspectives. For example,

"Sharing it with a colleague if there has been insecurity about how you have managed a patient's care or coped with challenging family members"

"Peer support after a patient's traumatic death"

DISCUSSION

Reflection on the results

This study, based on empathy-based stories, provides knowledge of the challenges and needs for support anticipated by nursing staff preparing for a merger of three units responsible for the care of critically ill patients. As regards challenges, participants portrayed personal factors that might affect their coping in the new unit, factors related to co-operation among nursing staff and factors associated with the new work context. The personal factors involved participants' concern about their mental and physical resources and professional competence. As in earlier studies (e.g. Valentin and Ferdinande, 2011; Vifladt et al., 2016), nurses voiced their concern over patient safety and teamwork. The importance of a functional safety culture, including common action models, rules and documentation practices was also stressed in the participants' narratives. To be able to cope with change, nurses expected cognitive, social and concrete support from colleagues. They especially expected support from their immediate managers, or the ward manager and assistant ward manager.

The study also provides an example of how the Foresight Framework Model and the empathy-based method as part of it can be used in planning clinical nursing. The method was quick to use and it was well received among the participants. The narratives easily yielded to analysis and proved useful in inducing participants to reflect on the impact of change and in capturing their individual concerns and

expectations. The method did not set constraints on the responses; the participants were able to write freely, which yielded a rich set of material. According to Eskola (1998), 15-20 responses per frame story is an adequate number, but the method requires that respondents have sufficient motivation and ability to express themselves in writing. This study involved 20 narratives. The use of two or more frame stories might have resulted in even more variation in the results. One might also speculate that such an anticipatory method might become a self-fulfilling prophesy or lead to futile worry in individuals with a strong need to seek safety by maintaining routines. On the other hand, reflection on change can give participants time to prepare, which can promote their adaptation.

Finally, the use of these methods, the Foresight Framework Model and empathy-based method, signals appreciation of the staff's expertise, which can increase their motivation to participate in the process and decrease their resistance to change. The development of a working community is target-oriented action, whether viewed from the organization's or the individual's perspective. To create well-being at work, open dialogue, continuous professional development and joint planning are required, and a balance must be reached between work requirements and staff competence. Staff involvement and shared experiences have been found to promote the creation of a positive working environment and smoothly-functioning practices. (Stenvall & Virtanen, 2010, 173-174.)

Trustworthiness

Careful and accurate conduct of research promotes the trustworthiness of the findings (Finnish Advisory Board on Research Integrity, 2013). The trustworthiness of this study was evaluated using the criteria of credibility, confirmability, reflexibility and transferability (Kylmä and Juvakka, 2007). Credibility requires that the findings presented should be compatible with participants' narratives. To ensure credibility, the investigator repeatedly returned to the original description throughout the analysis. The ample material, which contained both similar experiences and unique concerns,

increased the trustworthiness of the research. The findings were also illustrated by original expressions. The confirmability and credibility of the study was strengthened by careful analysis and reporting of the material, including the use of use illustrative tables. On the other hand, confirmability may have been diminished by the fact that the analysis was conducted by a single investigator. Six participants were requested to evaluate the findings and compare them to what they had written, which contributes to the trustworthiness of the study. Finally, reflexivity means the researchers' awareness of their potential bias. In this case, the investigator's long nursing career may have influenced the interpretation, although every effort was made to detach from bias.

Limitations

The study might have produced a wider variety of results, had the respondents received several different frame stories to base their writing on. The use of a single frame story may have limited the results and the time allocated, 30 minutes, may have been too short for some respondents. A longer time might have allowed a more profound writing process.

CONCLUSION

This study provides new knowledge of the anticipated challenges and factors likely to promote the coping of nursing staff preparing for a merger of intensive and intermediate care units. Anticipatory narratives proved useful in inducing participants to reflect on the impact of change and in helping them prepare for change. Since problems were anticipated in co-operation in the new work context, fostering peer support and team spirit would seem important.

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Highlights

Participants anticipated challenges related to personal factors that affect coping at work, challenges in co-operation among nursing staff and problems associated with the new work context.

Participants expected to need informational, concrete and social support from colleagues in future clinical nursing situation.